

The 82E03 AE Multiplex Card

Circuit Description:

The 82E03 Multiplex card is mounted piggy-back onto the 82E293 Logic card. The 82E03 has two sections; the analogue multiplexer for 119 outputs and a small section of logic to control the computer sends and returns.

The multiplex section comprises two levels of one out of eight multiplexers. The first level has two 4051 1 of 8 Multiplexers, the choice of which is the first bit of the address applied to the inhibit inputs, and bits 1,2 and 3 of the address bus. The second level Multiplexers accept all the inputs from the module and feed the first level, the choice being made by bits 4,5 and 6 of the address bus. The inhibit inputs of all the second level multiplexers are tied together and become a master inhibit.

The next stage after the multiplexer is a TL084 quad op-amp configured to remove the +11 volt offset, the dc variance of the +18 volt rail and reduce the level to a +5 volt maximum before feeding via a 4016B 1 of 4 data selector to the computer's Analogue input card, 82E41. (NB: This 4016B is powered between +5 volt and 0 volt, all other logic on this card is powered between +18 volt and +11 volt).

The normal mode of the console connects the computer send and return to the VCA card, 82E13. In the Total Recall mode the send and return to the VCA card are connected together, hence the fader is directly controlling the VCA, and the multiplex output is fed to the computer send and the Analogue input card, 82E41.

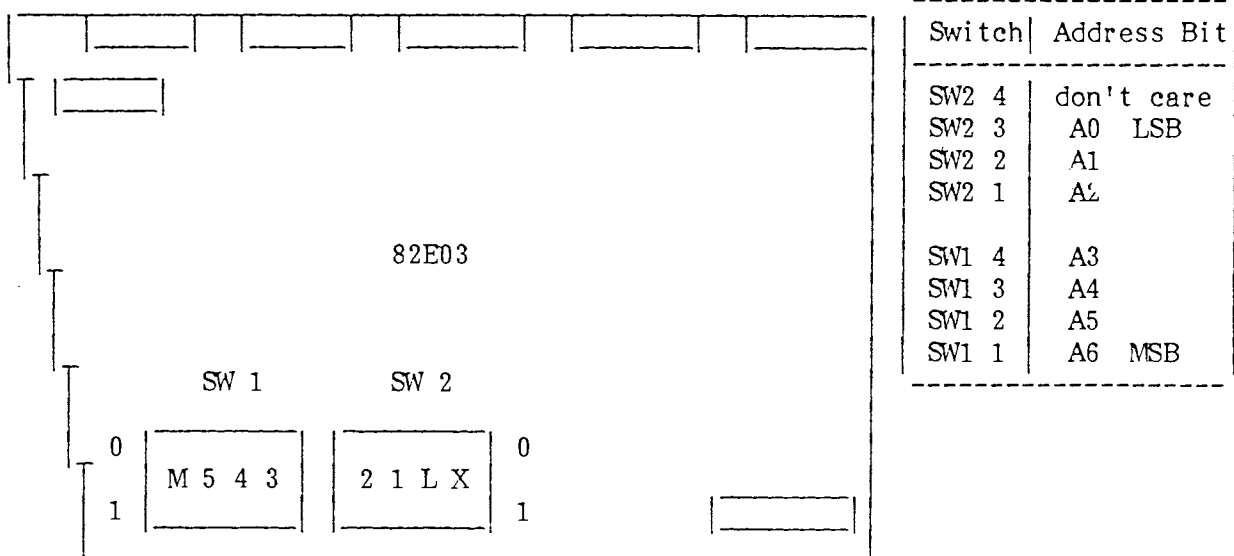
The storing of the Total Recall setup is accomplished in two different ways. In normal mode the Multiplexer Enable bus is taken high. If "quiet Total Recall" is selected on your program disk, the Address bus carries the address of the channel and an Address Enable pulse sets a D type latch to enable that channel's multiplexer feed to go to the computer. When finished the latch is reset in the same way as it was set. The latch cannot be set if the Mux Enable line is high, and if the latch is set and then the Mux Enable goes high the latch is cleared. The address decoding is an AND function with preset switches giving a true or inverse option for each bit of the address, thereby allowing any address number to be set.

The output of the latch or the Mux Enable drives the inhibit line of the multiplex block and the switching of the analogue gate to affect the routing of the analogue send and return. The logic levels are +18 volts and +11 volts; the driver stage, part of T24, is an op-amp to reduce these to +5 volts and 0 volts, it also inverts the signal.

Line 0 of the multiplexer is connected to +18 volts via a potential divider (the 200K to 0 volt and the on resistance of the gates and the series resistor). This is to enable the computer to measure the +18 volt rail with reference to the +11 volt power supply: all other dc variations are allowed for in the circuit of the TL084.

T82003.40
Dec 87

82E03 Channel Address Switches



611E/V Multiplex addresses

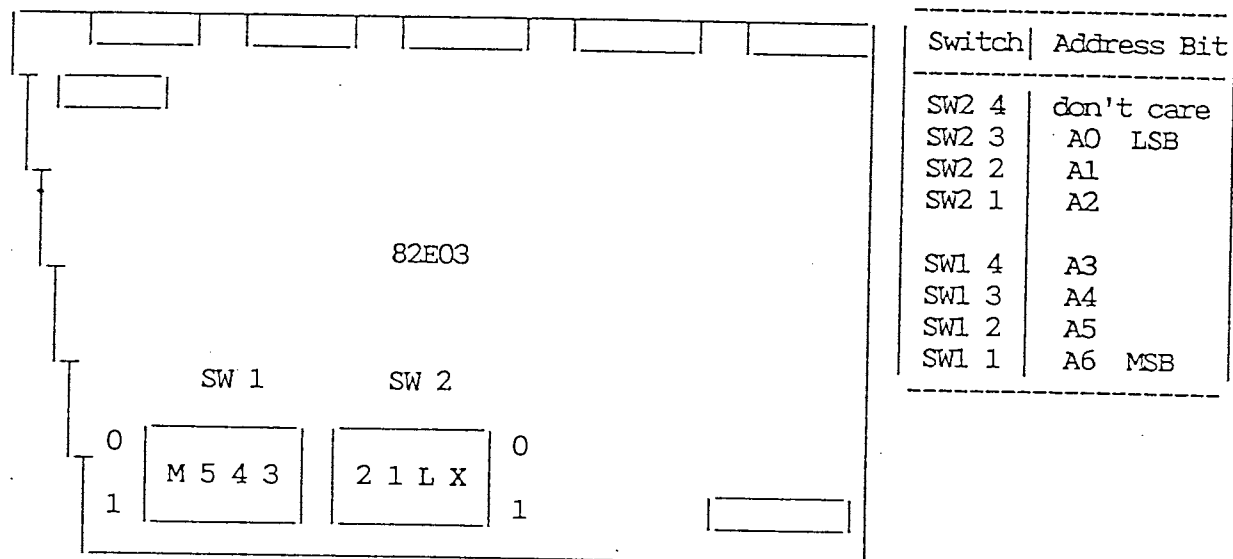
Channel number	SW 1 M 5 4 3	SW 2 2 1 L X	CA D bus
01	0 0 0 0	1 1 1 X	07
02	0 0 0 1	0 1 0 X	0A
03	0 0 0 0	1 1 0 X	06
04	0 0 0 1	0 1 1 X	0B
05	0 0 0 0	1 0 1 X	05
06	0 0 0 1	0 0 0 X	08
07	0 0 0 0	1 0 0 X	04
08	0 0 0 1	0 0 1 X	09
09	0 0 0 0	0 1 1 X	03
10	0 0 0 1	1 1 0 X	0E
11	0 0 0 0	0 0 1 X	01
12	0 0 0 1	1 1 1 X	0F
13	0 0 0 0	0 1 0 X	02
14	0 0 0 1	1 0 0 X	0C
15	0 0 0 0	0 0 0 X	00
16	0 0 0 1	1 0 1 X	0D
17	0 0 1 0	1 1 1 X	17
18	0 0 1 1	0 1 0 X	1A
19	0 0 1 0	1 1 0 X	16
20	0 0 1 1	0 1 1 X	1B
21	0 0 1 0	1 0 1 X	15
22	0 0 1 1	0 0 0 X	18
23	0 0 1 0	1 0 0 X	14
24	0 0 1 1	0 0 1 X	19
25	0 0 1 0	0 1 1 X	13
26	0 0 1 1	1 1 0 X	1E
27	0 0 1 0	0 0 1 X	11
28	0 0 1 1	1 1 1 X	1F
29	0 0 1 0	0 1 0 X	12
30	0 0 1 1	1 0 0 X	1C
31	0 0 1 0	0 0 0 X	10
32	0 0 1 1	1 0 1 X	1D

Channel number	SW 1 M 5 4 3	SW 2 2 1 L X	CA D bus
33	0 1 0 0	1 1 1 X	27
34	0 1 0 1	0 1 0 X	2A
35	0 1 0 0	1 1 0 X	26
36	0 1 0 1	0 1 1 X	2B
37	0 1 0 0	1 0 1 X	25
38	0 1 0 1	0 0 0 X	28
39	0 1 0 0	1 0 0 X	24
40	0 1 0 1	0 0 1 X	29
41	0 1 1 0	1 1 1 X	37
42	0 1 1 0	1 1 0 X	36
43	0 1 1 0	1 0 1 X	35
44	0 1 1 0	1 0 0 X	34
45	0 1 1 0	0 1 1 X	33
46	0 1 1 0	0 0 1 X	31
47	0 1 1 0	0 1 0 X	32
48	0 1 1 1	1 1 1 X	3F
49	0 1 1 1	1 1 0 X	3E
50	0 1 1 1	1 0 1 X	3D
51	0 1 1 1	1 0 0 X	3C
52	0 1 1 1	0 1 1 X	3B
53	0 1 1 1	0 1 0 X	3A
54	0 1 1 1	0 0 1 X	39
55	0 1 1 1	0 0 0 X	38
56	1 0 0 0	0 0 0 X	40
Spare 1	0 1 0 0	0 1 1 X	23
Spare 2	0 1 0 1	1 1 0 X	2E
Spare 3	0 1 0 0	0 0 1 X	21
Spare 4	0 1 0 1	1 1 1 X	2F
Spare 5	0 1 0 0	0 1 0 X	22
Spare 6	0 1 0 1	1 0 0 X	2C
Spare 7	0 1 0 0	0 0 0 X	20
Spare 8	0 1 0 1	1 0 1 X	2D

T82003.50
22 Aug 85

82E03 Channel Address Switches

611E/V Multiplex addresses for computers with double scanning I/O systems



Channel number	SW 1 M 5 4 3	SW 2 2 1 L X	CA D bus
01	0 0 0 0	1 1 1 X	07
02	0 0 0 1	0 1 0 X	0A
03	0 0 0 0	1 1 0 X	06
04	0 0 0 1	0 1 1 X	0B
05	0 0 0 0	1 0 1 X	05
06	0 0 0 1	0 0 0 X	08
07	0 0 0 0	1 0 0 X	04
08	0 0 0 1	0 0 1 X	09
09	0 0 0 0	0 1 1 X	03
10	0 0 0 1	1 1 0 X	0E
11	0 0 0 0	0 0 1 X	01
12	0 0 0 1	1 1 1 X	0F
13	0 0 0 0	0 1 0 X	02
14	0 0 0 1	1 0 0 X	0C
15	0 0 0 0	0 0 0 X	00
16	0 0 0 1	1 0 1 X	0D
17	0 0 1 0	1 1 1 X	17
18	0 0 1 1	0 1 0 X	1A
19	0 0 1 0	1 1 0 X	16
20	0 0 1 1	0 1 1 X	1B
21	0 0 1 0	1 0 1 X	15
22	0 0 1 1	0 0 0 X	18
23	0 0 1 0	1 0 0 X	14
24	0 0 1 1	0 0 1 X	19
25	0 0 1 0	0 1 1 X	13
26	0 0 1 1	1 1 0 X	1E
27	0 0 1 0	0 0 1 X	11
28	0 0 1 1	1 1 1 X	1F
29	0 0 1 0	0 1 0 X	12
30	0 0 1 1	1 0 0 X	1C
31	0 0 1 0	0 0 0 X	10
32	0 0 1 1	1 0 1 X	1D

Channel number	SW 1 M 5 4 3	SW 2 2 1 L X	CA D bus
33	0 1 0 0	1 1 1 X	27
34	0 1 0 1	0 1 0 X	2A
35	0 1 0 0	1 1 0 X	26
36	0 1 0 1	0 1 1 X	2B
37	0 1 0 0	1 0 1 X	25
38	0 1 0 1	0 0 0 X	28
39	0 1 0 0	1 0 0 X	24
40	0 1 0 1	0 0 1 X	29
41	0 1 0 0	0 1 1 X	23
42	0 1 0 1	1 1 0 X	2E
43	0 1 0 0	0 0 1 X	21
44	0 1 0 1	1 1 1 X	2F
45	0 1 0 0	0 1 0 X	22
46	0 1 0 1	1 0 0 X	2C
47	0 1 0 0	0 0 0 X	20
48	0 1 0 1	1 0 1 X	2D
49	0 0 0 0	1 1 1 X	07
50	0 0 0 1	0 1 0 X	0A
51	0 0 0 0	1 1 0 X	06
52	0 0 0 1	0 1 1 X	0B
53	0 0 0 0	1 0 1 X	05
54	0 0 0 1	0 0 0 X	08
55	0 0 0 0	1 0 0 X	04
56	0 0 0 1	0 0 1 X	09
57	0 0 0 0	0 1 1 X	03
58	0 0 0 1	1 1 0 X	0E
59	0 0 0 0	0 0 1 X	01
60	0 0 0 1	1 1 1 X	0F
61	0 0 0 0	0 1 0 X	02
62	0 0 0 1	1 0 0 X	0C
63	0 0 0 0	0 0 0 X	00
64	0 0 0 1	1 0 1 X	0D

611E/V Multiplex addresses for computers with double scanning I/O systems

Channel number	SW 1				SW 2				CA	
	M	5	4	3	2	1	L	X	D	bus
65	0	0	1	0	1	1	1	X	17	
66	0	0	1	1	0	1	0	X	1A	
67	0	0	1	0	1	1	0	X	16	
68	0	0	1	1	0	1	1	X	1B	
69	0	0	1	0	1	0	1	X	15	
70	0	0	1	1	0	0	0	X	18	
71	0	0	1	0	1	0	0	X	14	
72	0	0	1	1	0	0	1	X	19	
73	0	0	1	0	0	1	1	X	13	
74	0	0	1	1	1	1	0	X	1E	
75	0	0	1	0	0	0	1	X	11	
76	0	0	1	1	1	1	1	X	1F	
77	0	0	1	0	0	1	0	X	12	
78	0	0	1	1	1	0	0	X	1C	
79	0	0	1	0	0	0	0	X	10	
80	0	0	1	1	1	0	1	X	1D	
81	0	1	0	0	1	1	1	X	27	
82	0	1	0	1	0	1	0	X	2A	
83	0	1	0	0	1	1	0	X	26	
84	0	1	0	1	0	1	1	X	2B	
85	0	1	0	0	1	0	1	X	25	
86	0	1	0	1	0	0	0	X	28	
87	0	1	0	0	1	0	0	X	24	
88	0	1	0	1	0	0	1	X	29	

82E03 - 20 way Scotchflex Multiplexer Input Connector Details 611G

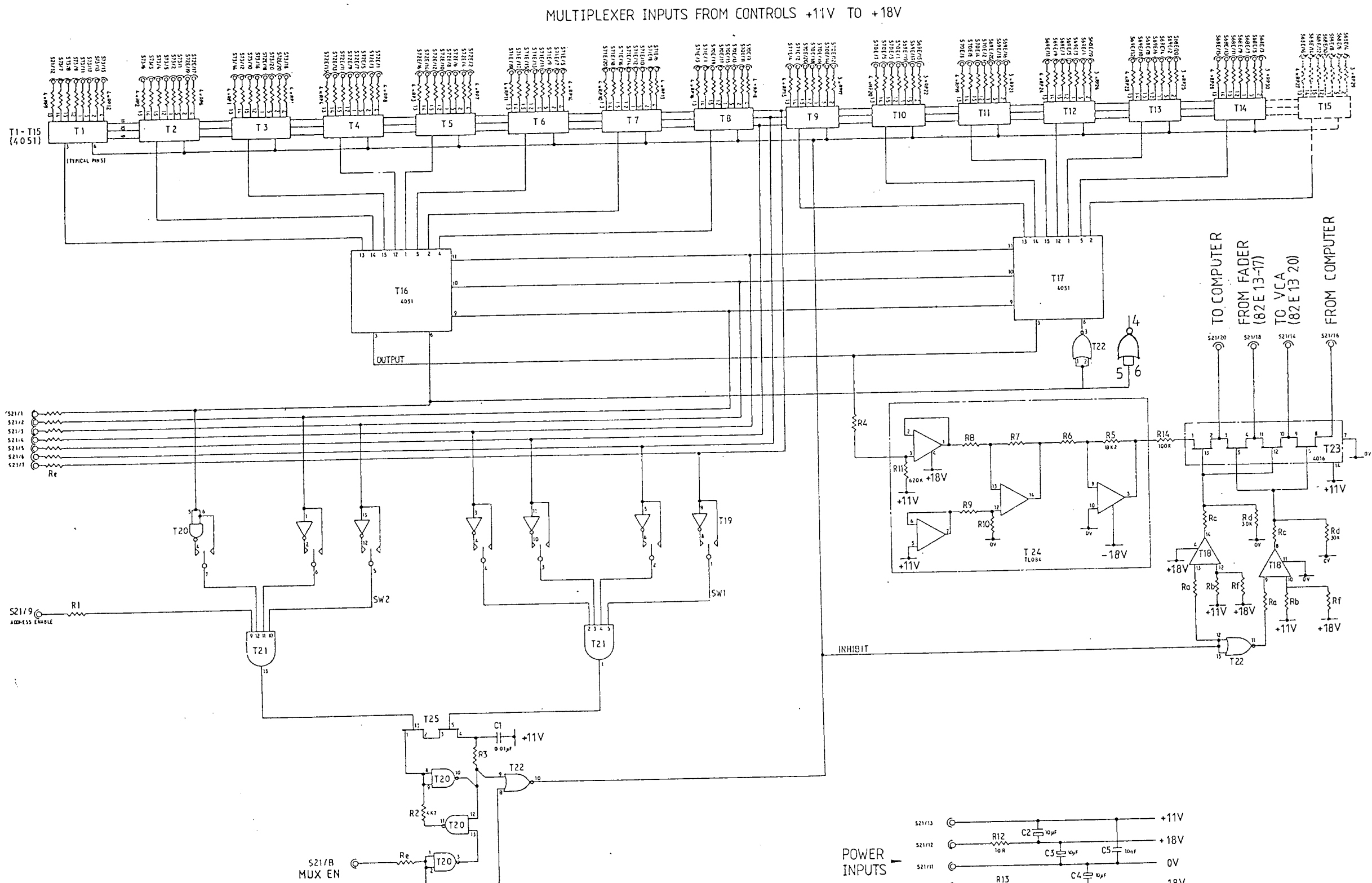
Port No	Address M54321L	Mux Code	Chip	Pin	Ribbon Pin	Front Panel Control
0	0000000	00	T1	13	na	(Internal resistor)
1	1110111	77	T15	4	S68, 2	Routing to Track 1
2	0110111	37	T15	2	S68, 4	Routing to Track 2
3	1010111	57	T15	5	S68, 6	Routing to Track 3
4	0010111	17	T15	1	S68, 8	Routing to Track 4
5	1100111	67	T15	12	S68,10	Routing to Track 5
6	0100111	27	T15	15	S68,12	Routing to Track 6
7	1000111	47	T15	14	S68,14	Routing to Track 7
8	0000111	07	T15	13	S68,16	Routing to Track 8
9	1110011	73	T13	4	S68,18	Routing to Track 9
10	0110011	33	T13	2	S68,20	Routing to Track 10
11	0111101	3D	T12	2	S68,19	Routing to Track 11
12	1111101	7D	T12	4	S68,17	Routing to Track 12
13	0001011	0B	T14	13	S68,15	Routing to Track 13
14	1001011	4B	T14	14	S68,13	Routing to Track 14
15	0101011	2B	T14	15	S68,11	Routing to Track 15
16	1101011	6B	T14	12	S68, 9	Routing to Track 16
17	1000011	43	T13	14	S69,10	Routing to Track 17
18	0000011	03	T13	13	S69,12	Routing to Track 18
19	1110101	75	T11	4	S69,14	Routing to Track 19
20	0110101	35	T11	2	S69,16	Routing to Track 20
21	1010101	55	T11	5	S69,18	Routing to Track 21
22	0010101	15	T11	1	S69,20	Routing to Track 22
23	0011001	19	T10	1	S69,19	Routing to Track 23
24	1011001	59	T10	5	S69,17	Routing to Track 24
25	0111001	39	T10	2	S69,15	Routing to Track 25
26	1111001	79	T10	4	S69,13	Routing to Track 26
27	0001101	0D	T12	13	S69,11	Routing to Track 27
28	1001101	4D	T12	14	S69, 9	Routing to Track 28
29	0101101	2D	T12	15	S69, 7	Routing to Track 29
30	1101101	6D	T12	12	S69, 5	Routing to Track 30
31	0011101	1D	T12	1	S69, 3	Routing to Track 31
32	1011101	5D	T12	5	S69, 1	Routing to Track 32
33	0100011	23	T13	15	S69, 8	Routing to Quad Bus LF
34	1100011	63	T13	12	S69, 6	Routing to Quad Bus RF
35	0010011	13	T13	1	S69, 4	Routing to Quad Bus LB
36	1010011	53	T13	5	S69, 2	Routing to Quad Bus RB
37	0010001	11	T9	1	S70,16	Routing Pan pot
38	0110001	31	T9	2	S70,12	Routing Pan Switch
39	0000101	05	T11	13	S70, 8	Input Flip Switch
40	1100001	61	T9	12	S70,18	Line Gain Trim pot
41	1010001	51	T9	5	S70,14	Sub-Group Switch
42	0100001	21	T9	15	S70,20	Phase Switch
43	0101110	2E	T8	15	S70,19	Mic Gain Trim pot
44	1111011	7B	T14	4	S68, 1	SPARE
45	1110001	71	T9	4	S70,10	Mic +48v
46	1011110	5E	T8	5	S70,13	Link Switch
47	1101110	6E	T8	12	S70,17	Compress Ratio pot
48	0011110	1E	T8	1	S70,15	Compress Threshold pot
49	0111110	3E	T8	2	S70,11	Compress Release pot
50	0001001	09	T10	13	S70, 7	Compress Attack Switch

82E03 - 20 way Scotchflex Multiplexer Input Connector Details 611G

Port No	Address M54321L	Mux Code	Chip	Pin	Ribbon Pin	Front Panel Control
51	1111110	7E	T8	4	S70, 9	Expand Threshold pot
52	1001001	49	T10	14	S70, 5	Expand Range pot
53	0101001	29	T10	15	S70, 3	Expand/Gate Switch
54	1101001	69	T10	12	S70, 1	Expand Release pot
55	1100101	65	T11	12	S70, 2	Expand Attack Switch
56	0111010	3A	T6	2	S71, 7	Dynamics to Channel Input
57	0001110	OE	T8	13	S71, 3	Dynamics to Channel Output
58	0000001	01	T9	13	S71, 4	Dynamics to Monitor
59	1110110	76	T7	4	S71, 6	HF Filter pot
60	0110110	36	T7	2	S71, 8	LF Filter pot
61	1000001	41	T9	14	S71, 2	Split Switch
62	1001110	4E	T8	14	S71, 1	HMFx3 Switch
63	1010110	56	T7	5	S71,10	HF +- pot
64	0010110	16	T7	1	S71,12	HF F pot
65	1100110	66	T7	12	S71,14	HMF +- pot
66	0100110	26	T7	15	S71,16	HMF F pot
67	0000110	06	T7	13	S71,20	HMF Q pot
68	1111010	7A	T6	4	S71, 5	Insert Pre Switch
69	1001010	4A	T6	14	S71,17	Insert In Switch
70	1011010	5A	T6	5	S71, 9	LMF +- pot
71	0011010	1A	T6	1	S71,11	LMF F pot
72	1101010	6A	T6	12	S71,13	LMF Q pot
73	0101010	2A	T6	15	S71,15	LF F pot
74	1000110	46	T7	14	S71,18	LF +- pot
75	0001010	0A	T6	13	S71,19	LMF+3 Switch
76	1111100	7C	T4	4	S72, 1	Equalizer to Channel Switch
77	1110010	72	T5	4	S72, 2	Filter to Dynamics Switch
78	0110010	32	T5	2	S72, 4	Equalizer to Monitor Switch
79	0100101	25	T11	15	S70, 4	EQ Type
80	1010010	52	T5	5	S72, 6	Stereo Cue Pan pot
81	0010010	12	T5	1	S72, 8	Stereo Cue Pre Switch
82	1100010	62	T5	12	S72,10	Stereo Cue Small Fader Switch
83	0100010	22	T5	15	S72,12	Stereo Cue Level pot
84	1000010	42	T5	14	S72,14	Stereo Cue Pull Switch
85	0000010	02	T5	13	S72,16	Cue 1 Pre Switch
86	0111000	38	T2	2	S72,19	Cue 1 Small Fader Switch
87	0010100	14	T3	1	S72,18	Cue 1 Level pot
88	0110100	34	T3	2	S72,20	Cue 1 Pull Switch
89	1111000	78	T2	4	S72,17	Cue 2 Pre Switch
90	0101100	2C	T4	15	S72,11	Cue 2 Small Fader Switch
91	0001100	0C	T4	13	S72,15	Cue 2 Level pot
92	1001100	4C	T4	14	S72,13	Cue 2 Pull Switch
93	1101100	6C	T4	12	S72, 9	Cue 3 Pre Switch
94	0111100	3C	T4	2	S72, 3	Cue 3 Small Fader Switch
95	0011100	1C	T4	1	S72, 7	Cue 3 Level pot
96	1011100	5C	T4	5	S72, 5	Cue 3 Pull Switch
97	1010000	50	T1	5	S73,17	Cue 4 Pre Switch
98	0010000	10	T1	1	S73,11	Cue 4 Small Fader Switch
99	1110000	70	T1	4	S73,15	Cue 4 Level pot
100	0110000	30	T1	2	S73,13	Cue 4 Pull Switch
101	1101000	68	T2	12	S73, 5	Group Line Trim pot

82E03 - 20 way Scotchflex Multiplexer Input Connector Details 611G

Port No	Address M54321L	Mux Code	Chip	Pin	Ribbon Pin	Front Panel Control
102	1100000	60	T1	12	S73, 9	Group Float Switch
103	1000000	40	T1	14	S73, 7	Group Direct Switch
104	1001000	48	T2	14	S73, 3	Ready Group Switch
105	1011000	58	T2	5	S73, 1	Ready Tape Switch
106	0101000	28	T2	15	S73, 4	Channel Input Switch
107	0001000	08	T2	13	S73, 6	Channel Output Switch
108	0100100	24	T3	15	S73,10	Small Fader Solo Switch
109	0100000	20	T1	15	S73, 8	Small Fader Cut Switch
110	0011000	18	T2	1	S73, 2	Small Fader Level
111	1000100	44	T3	14	S73,12	Front Back Pan pot
112	0000100	04	T3	13	S73,14	Front Back Pan Switch
113	1100100	64	T3	12	S73,16	Left Right Pan pot
114	1010100	54	T3	5	S73,20	VCA Fader Solo Isolate Switch
115	0011011	74	T3	4	S73,18	VCA Cut Switch
116	0111011	3B	T14	2	S68, 3	VCA Thumbwheel
117	1000101	45	T11	14	S70, 6	Channel Ident (1=Stereo)
118	0011011	1B	T14	1	S68, 7	Dual Line I/P ident
119	1011011	5B	T14	5	S68, 5	Spare
	1110100	-	-	-	S73,19	No Track



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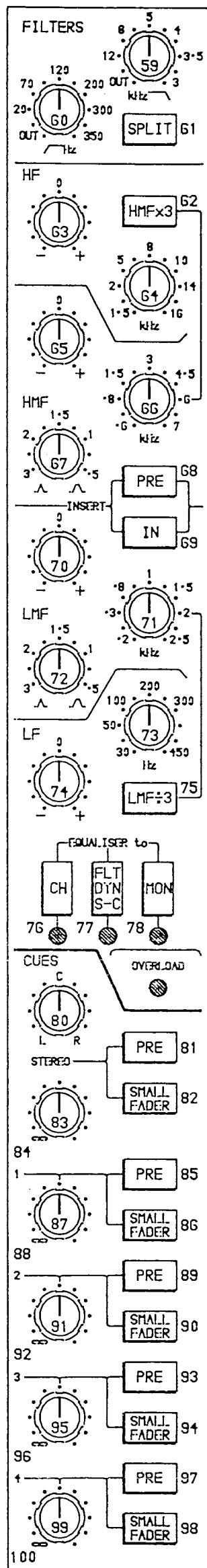
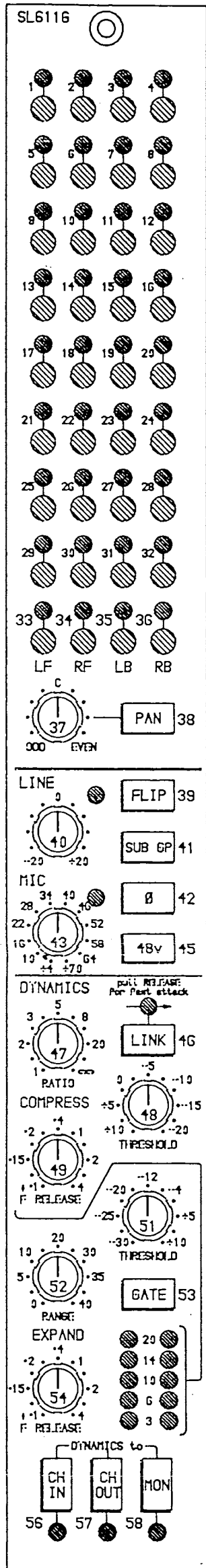
Rev.	Issue	Details
1	a	Orig issue
2	a	
3	a	Components re-annotated for ATE
4	a	ASSY REV No UPDATED FEB 86
4	b	T23 ADDED SEPT 86
4	c	VOLTAGES AMENDED DTG. 7 Jan 88

Title TOTAL RECALL
MULTIPLEXER

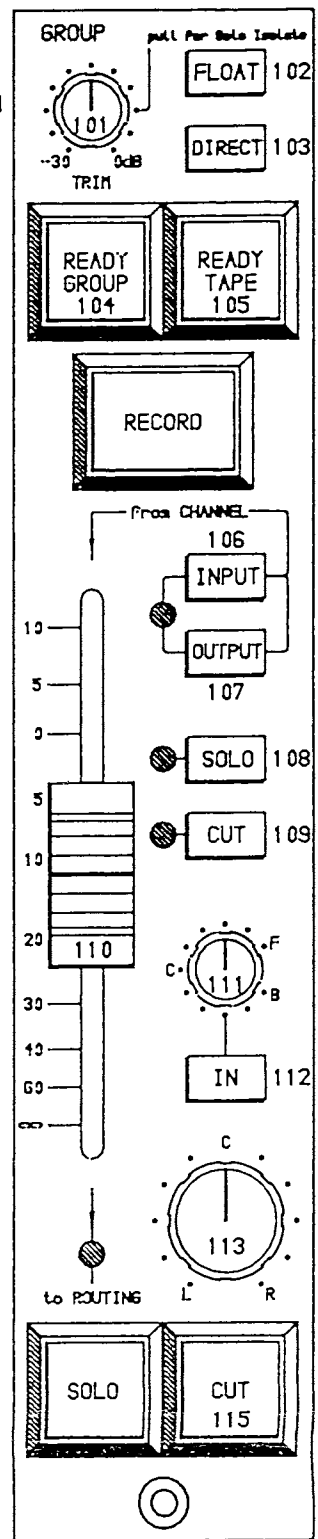
Drg.No. T82003-71

Solid State Logic

Stonesfield : Oxford : England



114 = SOLO ISOLATE SWITCH



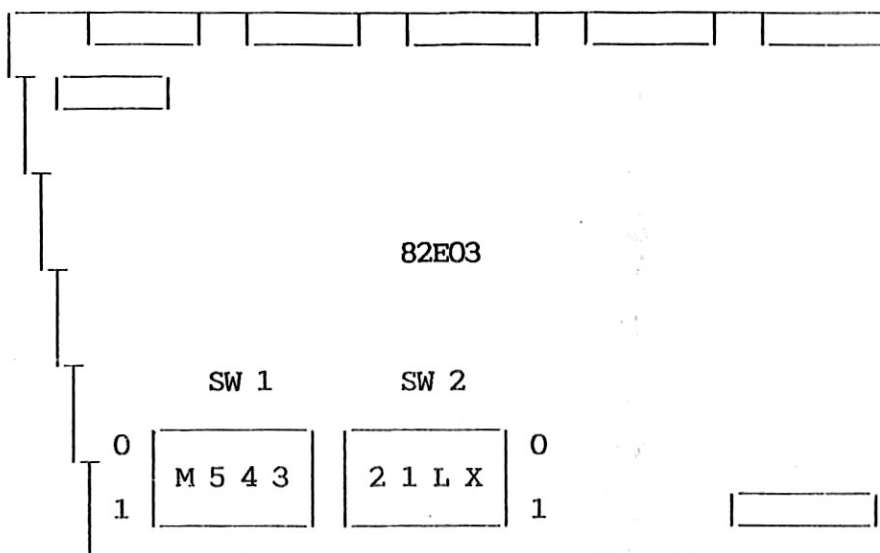
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Rev	Date	Chkd	Details
Q	12 01 88	JEV	NEW DRG. ADDED.

SIX11 SHT. 13	SL6116 TOTAL RECALL MULTIPLEXER OBJECT NOS.	Drq. No. T0611G.32
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Solid State Logic

82E03 Channel Address Switches



Switch	Address Bit
SW2 4	don't care
SW2 3	A0 LSB
SW2 2	A1
SW2 1	A2
SW1 4	A3
SW1 3	A4
SW1 2	A5
SW1 1	A6 MSB

Address list for 611S

Channel number	SW 1 M 5 4 3	SW 2 2 1 L X	CA D bus
01	0 0 0 0	1 1 1 X	07
02	0 0 0 1	0 1 0 X	0A
03	0 0 0 0	1 1 0 X	06
04	0 0 0 1	0 1 1 X	0B
05	0 0 0 0	1 0 1 X	05
06	0 0 0 1	0 0 0 X	08
07	0 0 0 0	1 0 0 X	04
08	0 0 0 1	0 0 1 X	09
09	0 0 0 0	0 1 1 X	03
10	0 0 0 1	1 1 0 X	0E
11	0 0 0 0	0 0 1 X	01
12	0 0 0 1	1 1 1 X	0F
13	0 0 0 0	0 1 0 X	02
14	0 0 0 1	1 0 0 X	0C
15	0 0 0 0	0 0 0 X	00
16	0 0 0 1	1 0 1 X	0D
17	0 0 1 0	1 1 1 X	17
18	0 0 1 1	0 1 0 X	1A
19	0 0 1 0	1 1 0 X	16
20	0 0 1 1	0 1 1 X	1B
21	0 0 1 0	1 0 1 X	15
22	0 0 1 1	0 0 0 X	18
23	0 0 1 0	1 0 0 X	14
24	0 0 1 1	0 0 1 X	19
25	0 0 1 0	0 1 1 X	13
26	0 0 1 1	1 1 0 X	1E
27	0 0 1 0	0 0 1 X	11
28	0 0 1 1	1 1 1 X	1F
29	0 0 1 0	0 1 0 X	12
30	0 0 1 1	1 0 0 X	1C
31	0 0 1 0	0 0 0 X	10
32	0 0 1 1	1 0 1 X	1D

Channel number	SW 1 M 5 4 3	SW 2 2 1 L X	CA D bus
33	0 1 0 0	1 1 1 X	27
34	0 1 0 1	0 1 0 X	2A
35	0 1 0 0	1 1 0 X	26
36	0 1 0 1	0 1 1 X	2B
37	0 1 0 0	1 0 1 X	25
38	0 1 0 1	0 0 0 X	28
39	0 1 0 0	1 0 0 X	24
40	0 1 0 1	0 0 1 X	29
41	0 1 1 0	1 1 1 X	37
42	0 1 1 0	1 1 0 X	36
43	0 1 1 0	1 0 1 X	35
44	0 1 1 0	1 0 0 X	34
45	0 1 1 0	0 1 1 X	33
46	0 1 1 0	0 0 1 X	31
47	0 1 1 0	0 1 0 X	32
48	0 1 1 1	1 1 1 X	3F
49	0 1 1 1	1 1 0 X	3E
50	0 1 1 1	1 0 1 X	3D
51	0 1 1 1	1 0 0 X	3C
52	0 1 1 1	0 1 1 X	3B
53	0 1 1 1	0 1 0 X	3A
54	0 1 1 1	0 0 1 X	39
55	0 1 1 1	0 0 0 X	38
56	1 0 0 0	0 0 0 X	40
Spare 1	0 1 0 0	0 1 1 X	23
Spare 2	0 1 0 1	1 1 0 X	2E
Spare 3	0 1 0 0	0 0 1 X	21
Spare 4	0 1 0 1	1 1 1 X	2F
Spare 5	0 1 0 0	0 1 0 X	22
Spare 6	0 1 0 1	1 0 0 X	2C
Spare 7	0 1 0 0	0 0 0 X	20
Spare 8	0 1 0 1	1 0 1 X	2D

T82003.51
22 Aug 85

82E03 - 20 way Scotchflex Multiplexer Input Connector Details

Port No	Address M54321L	Mux Code	Chip	Pin	Ribbon Pin	Front Panel Control
0	0000000	00	T1	13	na	(Internal resistor)
1	1110111	77	T15	4	S68, 2	Routing to Track 1
2	0110111	37	T15	2	S68, 4	Routing to Track 2
3	1010111	57	T15	5	S68, 6	Routing to Track 3
4	0010111	17	T15	1	S68, 8	Routing to Track 4
5	1100111	67	T15	12	S68, 10	Routing to Track 5
6	0100111	27	T15	15	S68, 12	Routing to Track 6
7	1000111	47	T15	14	S68, 14	Routing to Track 7
8	0000111	07	T15	13	S68, 16	Routing to Track 8
9	1110011	73	T13	4	S68, 18	Routing to Track 9
10	0110011	33	T13	2	S68, 20	Routing to Track 10
11	0111101	3D	T12	2	S68, 19	Routing to Track 11
12	1111101	7D	T12	4	S68, 17	Routing to Track 12
13	0001011	0B	T14	13	S68, 15	Routing to Track 13
14	1001011	4B	T14	14	S68, 13	Routing to Track 14
15	0101011	2B	T14	15	S68, 11	Routing to Track 15
16	1101011	6B	T14	12	S68, 9	Routing to Track 16
17	1000011	43	T13	14	S69, 10	Routing to Track 17
18	0000011	03	T13	13	S69, 12	Routing to Track 18
19	1110101	75	T11	4	S69, 14	Routing to Track 19
20	0110101	35	T11	2	S69, 16	Routing to Track 20
21	1010101	55	T11	5	S69, 18	Routing to Track 21
22	0010101	15	T11	1	S69, 20	Routing to Track 22
23	0011001	19	T10	1	S69, 19	Routing to Track 23
24	1011001	59	T10	5	S69, 17	Routing to Track 24
25	0111001	39	T10	2	S69, 15	Routing to Track 25
26	1111001	79	T10	4	S69, 13	Routing to Track 26
27	0001101	0D	T12	13	S69, 11	Routing to Track 27
28	1001101	4D	T12	14	S69, 9	Routing to Track 28
29	0101101	2D	T12	15	S69, 7	Routing to Track 29
30	1101101	6D	T12	12	S69, 5	Routing to Track 30
31	0011101	1D	T12	1	S69, 3	Routing to Track 31
32	1011101	5D	T12	5	S69, 1	Routing to Track 32
33	0100011	23	T13	15	S69, 8	Routing to A Bus
34	1100011	63	T13	12	S69, 6	Routing to B Bus
35	0010011	13	T13	1	S69, 4	Routing to C Bus
36	1010011	53	T13	5	S69, 2	Not used
37	0010001	11	T9	1	S70, 16	Line gain switch
38	0110001	31	T9	2	S70, 12	M/S switch
39	0000101	05	T11	13	S70, 8	L phase switch
40	1100001	61	T9	12	S70, 18	Line trim pot
41	1010001	51	T9	5	S70, 14	R phase switch
42	0100001	21	T9	15	S70, 20	Mono L switch
43	0101110	2E	T8	15	S70, 19	Balance pot
44	1111011	7B	T14	4	S68, 1	Not used
45	1110001	71	T9	4	S70, 10	Mono R switch
46	1011110	5E	T8	5	S70, 13	Not used
47	1101110	6E	T8	12	S70, 17	Compress Ratio switch
48	0011110	1E	T8	1	S70, 15	Compress Threshold pot
49	0111110	3E	T8	2	S70, 11	Compress Release pot
50	0001001	09	T10	13	S70, 7	Compress Release switch

82E03 - 20 way Scotchflex Multiplexer Input Connector Details

Port No	Address M54321L	Mux Code	Chip	Pin	Ribbon Pin	Front Panel Control
51	1111110	7E	T8	4	S70, 9	Expand Threshold pot
52	1001001	49	T10	14	S70, 5	Expand Range pot
53	0101001	29	T10	15	S70, 3	Expand/Gate switch
54	1101001	69	T10	12	S70, 1	Expand Release pot
55	1100101	65	T11	12	S70, 2	Expand Release switch
56	0111010	3A	T6	2	S71, 7	Side chain pre EQ
57	0001110	0E	T8	13	S71, 3	Side chain post EQ
58	0000001	01	T9	13	S71, 4	Side chain insert return
59	1110110	76	T7	4	S71, 6	HF Filter pot
60	0110110	36	T7	2	S71, 8	LF Filter pot
61	1000001	41	T9	14	S71, 2	Filter to I/P switch
62	1001110	4E	T8	14	S71, 1	HF Bell Switch
63	1010110	56	T7	5	S71, 10	HF +- pot
64	0010110	16	T7	1	S71, 12	HF F pot
65	1100110	66	T7	12	S71, 14	Not used
66	0100110	26	T7	15	S71, 16	Not used
67	0000110	06	T7	13	S71, 20	Not used
68	1111010	7A	T6	4	S71, 5	Filter to Dynamics S/C
69	1001010	4A	T6	14	S71, 17	EQ In switch
70	1011010	5A	T6	5	S71, 9	LMF +- pot
71	0011010	1A	T6	1	S71, 11	LMF F pot
72	1101010	6A	T6	12	S71, 13	LMF Q switch
73	0101010	2A	T6	15	S71, 15	LF F pot
74	1000110	46	T7	14	S71, 18	LF +- pot
75	0001010	0A	T6	13	S71, 19	LF Bell switch
76	1111100	7C	T4	4	S72, 1	Insert post VCA
77	1110010	72	T5	4	S72, 2	Insert post EQ
78	0110010	32	T5	2	S72, 4	Insert pre EQ
79	0100101	25	T11	15	S70, 4	EQ Type
80	1010010	52	T5	5	S72, 6	Stereo Cue Balance pot
81	0010010	12	T5	1	S72, 8	Stereo Cue Pre switch
82	1100010	62	T5	12	S72, 10	Stereo Cue Mono switch
83	0100010	22	T5	15	S72, 12	Stereo Cue Level pot
84	1000010	42	T5	14	S72, 14	Stereo Cue Pull switch
85	0000010	02	T5	13	S72, 16	Cue 1 Pre switch
86	0111000	38	T2	2	S72, 19	Cue 1 Stereo link switch
87	0010100	14	T3	1	S72, 18	Cue 1 Level pot
88	0110100	34	T3	2	S72, 20	Cue 1 Pull switch
89	1111000	78	T2	4	S72, 17	Cue 2 Pre switch
90	0101100	2C	T4	15	S72, 11	Not used
91	0001100	0C	T4	13	S72, 15	Cue 2 Level pot
92	1001100	4C	T4	14	S72, 13	Cue 2 Pull switch
93	1101100	6C	T4	12	S72, 9	Cue 3 Pre switch
94	0111100	3C	T4	2	S72, 3	Cue 3 Stereo link switch
95	0011100	1C	T4	1	S72, 7	Cue 3 Level pot
96	1011100	5C	T4	5	S72, 5	Cue 3 Pull switch
97	1010000	50	T1	5	S73, 17	Cue 4 Pre switch
98	0010000	10	T1	1	S73, 11	Cue 4 Not used
99	1110000	70	T1	4	S73, 15	Cue 4 Level pot
100	0110000	30	T1	2	S73, 13	Cue 4 Pull switch
101	1101000	68	T2	12	S73, 5	Meter L switch

82E03 - 20 way Scotchflex Multiplexer Input Connector Details

Port No	Address M54321L	Mux Code	Chip	Pin	Ribbon Pin	Front Panel Control
102	1100000	60	T1	12	S73, 9	Meter switch
103	1000000	40	T1	14	S73, 7	Meter R switch
104	1001000	48	T2	14	S73, 3	Start switch
105	1011000	58	T2	5	S73, 1	Stop switch
106	0101000	28	T2	15	S73, 4	Fader start switch
107	0001000	08	T2	13	S73, 6	Image control in switch
108	0100100	24	T3	15	S73, 10	Wide switch
109	0100000	20	T1	15	S73, 8	Filter switch
110	0011000	18	T2	1	S73, 2	Image width pot
111	1000100	44	T3	14	S73, 12	Image pan pot
112	0000100	04	T3	13	S73, 14	Solo isolate switch
113	1100100	64	T3	12	S73, 16	PFL switch
114	1010100	54	T3	5	S73, 20	VCA Fader Solo switch
115	0011011	74	T14	1	S73, 18	VCA Cut Switch
116	0111011	3B	T14	2	S68, 3	VCA Thumbwheel
117	1000101	45	T11	14	S70, 6	Channel Ident
	1110100	1B	T3	4	S73, 19	Not Used (No Track)